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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,352	12/31/2001	Philip T. Dempster	LM-001	3851
1473	7590	03/02/2004	EXAMINER	
FISH & NEAVE 1251 AVENUE OF THE AMERICAS 50TH FLOOR NEW YORK, NY 10020-1105			ROGERS, DAVID A	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,352	Applicant(s) DEMPSTER ET AL.	
	Examiner David A. Rogers	Art Unit 2856	<i>AW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) 1-38 and 59-76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-42, 46, 49 and 52-55 is/are rejected.
- 7) ☒ Claim(s) 43-45, 47, 48, 50, 51 and 56-58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20021007, 20030715</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 1-38 and 59-76 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made without traverse on 18 August 2003.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

3. The drawings are objected to because they do not comply with the following drawing requirements: 37 CFR 1.84(h)(1), 37 CFR 1.84(h)(3), 37 CFR 1.84(l), 37 CFR 1.84(m), and 37 CFR 1.84(p). Also note that Figure 3B uses the reference character "60" to identify the sleeve, which is reference character "68" in the disclosure (see page 11, line 2). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.

Claim Objections

4. Claims 42, 43, 44, and 46 are objected to because of the following informalities. The claim dependencies, as written, would result in rejections under 35 USC 112. Agreement was reached with the Mr. Douglas Oguss, Attorney-of-Record, on 11 February 2004 that a) claim 42 will depend from

claim 41; b) claim 43 will depend from claim 42; c) claim 44 will depend from claim 42; and d) claim 46 will depend from claim 39. The application has been examined with these agreed-upon changes taken into account. It was also noted to Mr. Oguss that line 6 of claims 41 and 54 need to be amended to include the term "leaf" and the end of each line. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 3,511,237 to Jaeger in view of United States Patent 406,247 to Webb and United States Patent 2,164,047 to Baumann. Jaeger teaches a plethysmograph (volume measuring chamber) (reference item 10), as best seen in Figure 1. The chamber comprises a movably attached, tightly closing door (reference item 14). The attachment means is a hinge (unlabeled). Jaeger does not teach a door attached to the chamber using a dual articulating hinge. Dual articulating hinges for doors are very common. One can buy dual articulating hinges at most common hardware stores. Webb teaches an example of such a dual articulating hinge, as best seen in Figure 3. The dual

articulating hinge comprises a first leaf element (reference item D), a second leaf element (reference item F), and a hinge coupling strut (reference item E). Two hinge pins are provided to allow the coupling strut to pivotally move at two hinge pivots (reference items a and b). The use of a dual articulating door hinge on the chamber of Jaeger would have been obvious as it would allow the entire door to open clear of the chamber, as shown in Figure 12 of Baumann, thus ensuring that large items that are placed in the chamber do not hit and damage the door. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger with the teachings of Webb and Baumann to provide a chamber and a door attached to the chamber using a dual articulating hinge.

7. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Webb and Baumann as applied to claim 39 above, and further in view of United States Patent 5,450,750 to Abler. Jaeger in view of Webb and Baumann teaches a volume measuring chamber comprising a door attached to the chamber using a dual articulating hinge. Jaeger in view of Webb and Baumann does not teach the use of a seal attached to the door. Jaeger does teach that the door must be tightly closing. It is well known in the art that elastomeric/resilient seals aid in forming tightly closed doors, lids, etc. Abler teaches a volume measuring chamber, as best seen in Figure 1. The chamber (reference item 10) comprises a base (reference item 12) and a lid (reference item 18) attached to the base by means of a hinge (reference item 22). The

chamber further comprises an elastomeric gasket (reference item 24) that encircles the upper lip (reference item 14) of the base that provides the sealing means between the base and the lid when the lid is closed. Providing the elastomeric gasket on the lid vice the base involves only routine skill in the art (just about any refrigerator comprises a sealing means located about the door's peripheral edge) and amounts to mere relocation of parts. See *In re Japikse*, 86 USPQ 70. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger in view of Webb and Baumann with the teachings of Abler to obtain an elastomeric gasket about the periphery of the door to allow the door to seal with the chamber.

8. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Webb and Baumann as applied to claim 39 above, and further in view of United States Patent 5,727,289 to Reder and United States Patent 2,930,074 to Marks. Jaeger in view of Webb and Baumann teaches that it is known to use a dual articulating hinge on a chamber. Jaeger in view of Webb and Baumann does not teach the use of a spacer for defining a set distance between the first leaf and the second leaf. Reder teaches an articulating hinge comprising a first leaf element (reference item 100), a second leaf element (reference item 200), and a hinge pin (reference item 155) for allowing the second leaf element to rotate relative to the first leaf element. The hinge further comprises a first stop element (reference item 10) and a second stop element (reference item 300) and adjustable screws

(reference item 376). The adjustable screws allow the user to limit the maximum angular opening of the door, as shown in Figure 4. The first stop element acts, *inter alia*, as a load bearing surface for the adjustment screws or the door itself. Moving the adjustment screws to be on the first leaf element would involve only routine skill in the art, and would allow the user to control or otherwise maintain the door in an open position. This is further taught in Marks where it is stated "In certain instances, it is desirable to provide a means for reliably maintaining swinging members, such as doors, in a desired open position, or to provide a means for preventing their inadvertent slamming because of winds, drafts, or other causes" (column 1, lines 20-24). In this regard, Marks teaches that it is known to attach a spacer (reference item 20) to a leaf vice attached to the hinge as in Reder. Attaching the screws of Reder to the second leaf would, in view of the teachings of Marks, allow one to control the amount of closing of the door. Furthermore, providing a load bearing surface on the first leaf would allow the screws to contact the bearing surface vice the leaf element, thus avoiding damage to the leaf element. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger in view of Webb and Baumann with the teachings of Reder and Marks to provide a spacer and a bearing surface on the leaves of a hinge to allow one to control the distance that a door swings when it closes.

9. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Webb and Baumann as applied to claim 39 above, and further in view of "A New Air Displacement Method for the Determination of Human Body Composition" to Dempster *et al.* Jaeger in view of Webb and Baumann teaches a volume measuring chamber comprising a hinge for attaching the door to the chamber. Jaeger in view of Webb and Baumann does not expressly teach the use of a latch for securing the door to the chamber. Dempster *et al.* teaches that it is known in plethymographic chambers to provide electromagnetic latching means for securing the door (page 1693, column 2). The electromagnetic latching means can provide a secure means for attaching the door to the chamber so that it does not release during the critical measurement period, and can be released by simply removing power to the latch in case of emergency. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger in view of Webb and Baumann with the teachings of Dempster *et al.* in order to provide a latch on the door to secure the door to the chamber while measuring the volume of a subject in the chamber.

10. Claims 49 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Dempster *et al.* and United States Patent 4,915,431 to Bailey. Jaeger teaches a plethysmograph (volume measuring chamber) (reference item 10), as best seen in Figure 1. The chamber comprises a movably attached, tightly closing door (reference item 14). The attachment

means is a hinge (unlabeled). Jaeger does not teach the use of an electromagnetic latch assembly for latching the door to the chamber.

Dempster *et al.* teaches that it is known in plethymographic chambers to provide electromagnetic latching means for securing the door (page 1693, column 2). Dempster *et al.* does not expressly teach the use of a “laterally compliant” electromagnetic latch assembly. Bailey teaches a laterally compliant electromagnetic latch assembly. The assembly comprises an electromagnet (reference item 2) with a generally planar face and a push button (reference item 9a). The assembly further comprises an armature plate (reference item 3) with a plunger (reference item 8). The plunger assembly contacts the push button when the door (reference item 5) is closed in order to actuate the electromagnet thus securing the door. Simple pushing on the door will open the door and will further release the plunger from the push button, thus deactivating the electromagnet. This type of laterally compliant latch would be beneficial in the volume measuring chamber as it would maintain the position of the door when closed, but would also allow the occupant of the chamber to open the door in case of an emergency. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger with the teachings of Dempster *et al.* and Bailey in order to provide a laterally compliant electromagnetic latch for a volume measuring chamber.

11. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Dempster *et al.* and Bailey as applied to claim 49 above, and further in view of Abler. Jaeger in view of Dempster *et al.* and Bailey teaches a volume measuring chamber comprising a laterally compliant electromagnetic latch assembly. Jaeger in view of Dempster *et al.* and Bailey does not teach the use of a seal attached to the door. Jaeger does teach that the door must be tightly closing. It is well known in the art that elastomeric/resilient seals aid in forming tightly closed doors, lids, etc. Abler teaches a volume measuring chamber, as best seen in Figure 1. The chamber (reference item 10) comprises a base (reference item 12) and a lid (reference item 18) attached to the base by means of a hinge (reference item 22). The chamber further comprises an elastomeric gasket (reference item 24) that encircles the upper lip (reference item 14) of the base that provides the sealing means between the base and the lid when the lid is closed. Providing the elastomeric gasket on the lid vice the base involves only routine skill in the art (just about any refrigerator comprises a sealing means located about the door's peripheral edge) and amounts to mere relocation of parts. See *In re Japikse*, 86 USPQ 70. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger in view of Dempster *et al.* and Bailey with the teachings of Abler to obtain an elastomeric gasket about the periphery of the door to allow the door to seal with the chamber.

12. Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger in view of Dempster *et al.* and Bailey as applied to claim 49 and 53 above, and further in view of Webb, Baumann, Reber, and Marks. Jaeger in view of Dempster *et al.* and Bailey teaches a plethysmograph (volume measuring chamber) (reference item 10), as best seen in Figure 1. The chamber comprises a movably attached, tightly closing door (reference item 14). The attachment means is a hinge (unlabeled). Jaeger in view of Dempster *et al.* and Bailey does not teach a door attached to the chamber using a dual articulating hinge. Dual articulating hinges for doors are very common. One can buy dual articulating hinges at most common hardware stores. Webb teaches an example of such a dual articulating hinge, as best seen in Figure 3. The dual articulating hinge comprises a first leaf element (reference item D), a second leaf element (reference item F), and a hinge coupling strut (reference item E). Two hinge pins are provided to allow the coupling strut to pivotally move at two hinge pivots (reference items a and b). The use of a dual articulating door hinge on the chamber of Jaeger would have been obvious as it would allow the entire door to open clear of the chamber, as shown in Figure 12 of Baumann, thus ensuring that large items that are placed in the chamber do not hit and damage the door. Jaeger in view of Dempster *et al.*, Bailey, Webb, and Baumann does not teach the use of a spacer on the hinge for defining a set distance between the first leaf and the second leaf. Reder teaches an articulating hinge comprising a first leaf element (reference item

100), a second leaf element (reference item 200), and a hinge pin (reference item 155) for allowing the second leaf element to rotate relative to the first leaf element. The hinge further comprises a first stop element (reference item 10) and a second stop element (reference item 300) and adjustable screws (reference item 376). The adjustable screws allow the user to limit the maximum angular opening of the door, as shown in Figure 4. The first stop element acts, *inter alia*, as a load bearing surface for the adjustment screws or the door itself. Moving the adjustment screws to be on the first leaf element would involve only routine skill in the art, and would allow the user to control or otherwise maintain the door in an open position. This is further taught in Marks where it is stated "In certain instances, it is desirable to provide a means for reliably maintaining swinging members, such as doors, in a desired open position, or to provide a means for preventing their inadvertent slamming because of winds, drafts, or other causes" (column 1, lines 20-24). In this regard, Marks teaches that it is known to attach a spacer (reference item 20) to a leaf vice attached to the hinge as in Reder. Attaching the screws of Reder to the second leaf would, in view of the teachings of Marks, allow one to control the amount of closing of the door. Furthermore, providing a load bearing surface on the first leaf would allow the screws to contact the bearing surface vice the leaf element, thus avoiding damage to the leaf element. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jaeger in view of Dempster *et al.* and Bailey with the

teachings of Webb, Baumann, Reder, and Marks to provide a dual articulating hinge with a spacer and a bearing surface on the leaves of a hinge to allow one to control the distance that a door swings when it closes.

Allowable Subject Matter

13. Claims 43-45, 47-48, 50-51, and 56-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter. The prior art teaches hinges with roller bearings, but does not teach a hinge with the roller bearing on a leaf that contacts an adjustable stop that is used to control the closing space of the hinge. The prior art teaches electromagnetic latches, but does not teach an electromagnetic latch comprising a roller ball in a sleeve that contact the planar surface of the electromagnet.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (703) 305-4451. The examiner can normally be reached on Monday - Friday (0730 - 1600).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208.

Art Unit: 2856

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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February 11, 2004


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